

Appl. No. 10/652,588
Amdt. Dated July 14, 2005
Reply to Office Action of March 14, 2005

Attorney Docket No. 81716.0110
Customer No.: 26021

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An optical element housing package, comprising:
a base body having a placement portion formed on one surface thereof, on which an optical element is placed; and
a frame body attached to the one surface of the base body so as to surround the placement portion, the frame body having an optical fiber introducing portion formed in one end part of its side surface, the optical fiber introducing portion being shaped as a groove having a substantially U-shaped sectional profile, through which an optical fiber is inserted and brazed, wherein a lid body is brazed to one surface of the frame body,
wherein the optical fiber introducing portion has an opening having a width in a range from $r + 5 \mu\text{m}$ to $r + 200 \mu\text{m}$, and a depth in a range from $r + 5 \mu\text{m}$ to $r + 200 \mu\text{m}$, in which $r (\mu\text{m})$ is a diameter of the optical fiber.
2. (Original) The optical element housing package of claim 1, further comprising:
an input/output terminal fitted in an input/output terminal fitting portion shaped as a through hole or a notch, the input/output terminal fitting portion being formed on the side of the frame body or in that part of the base body which is located inside the frame body.

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3. (Original) The optical element housing package of claim 1, further comprising:

an input/output terminal conductor which is led from the placement portion to another surface opposed to the one surface of the base body.

4. (Original) The optical element housing package of claim 3, wherein the optical element is a wavelength coupling/branching device.

5. (Original) The optical element housing package of claim 3, wherein the input/output terminal conductor allows input and output of a high-frequency signal of 10 GHz or above.

6. (Original) The optical element housing package of claim 4, wherein the input/output terminal conductor allows input and output of a high-frequency signal of 10 GHz or above.

7-9. (Canceled)

10. (Original) The optical element housing package of claim 1, wherein a thickness of the frame body is in a range from 0.7 mm to 1.8 mm.

11. (Original) The optical element housing package of claim 2, wherein a thickness of the frame body is in a range from 0.7 mm to 1.8 mm.

12. (Original) The optical element housing package of claim 3, wherein a thickness of the frame body is in a range from 0.7 mm to 1.8 mm.

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13. (Original) The optical element housing package of claim 1, wherein the part of the optical fiber which is located in the optical fiber introducing portion is exposed, and the bared core has its outer circumference coated with a plating film.

14. (Original) The optical element housing package of claim 2, wherein the part of the optical fiber which is located in the optical fiber introducing portion is exposed, and the bared core has its outer circumference coated with a plating film.

15. (Original) The optical element housing package of claim 3, wherein the part of the optical fiber which is located in the optical fiber introducing portion is exposed, and the bared core has its outer circumference coated with a plating film.

16. (Original) The optical element housing package of claim 1, wherein the frame body has an optical fiber supporting member bonded to the base body side surface thereof so as to be located below the optical fiber introducing portion.

17. (Original) The optical element housing package of claim 2, wherein the frame body has an optical fiber supporting member bonded to the base body side surface thereof so as to be located below the optical fiber introducing portion.

18. (Original) The optical element housing package of claim 3, wherein the frame body has an optical fiber supporting member bonded to the base body side surface thereof so as to be located below the optical fiber introducing portion.

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19. (Original) The optical element housing package of claim 16, wherein the lid body includes a flange portion which is bonded to the top surface of the optical fiber supporting member.

20. (Original) The optical element housing package of claim 17, wherein the lid body includes a flange portion which is bonded to the top surface of the optical fiber supporting member.

21. (Original) The optical element housing package of claim 18, wherein the lid body includes a flange portion which is bonded to the top surface of the optical fiber supporting member.

22. (Original) An optical module comprising:
the optical element housing of claim 1;
an optical element placed on the placement portion;
an optical fiber inserted through the optical fiber introducing portion and subjected to brazing; and
a lid body brazed to the one surface of the frame body, for hermetically sealing the optical element and the optical fiber introducing portion.